SAFETY DATA SHEET

Benzene / Toluene Mixture - Kingwood

Version 1.3
Revision Date 2015-05-05

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product information

Product Name : Benzene / Toluene Mixture - Kingwood

Use : Feedstock

Company : Chevron Phillips Chemical Company LP
10001 Six Pines Drive
The Woodlands, TX 77380

Emergency telephone:

Health:
866.442.9628 (North America)
1.832.813.4984 (International)

Transport:
North America: CHEMTREC 800.424.9300 or 703.527.3887
Asia: +800 CHEMCALL (+800 2436 2255) China:+86-21-22157316
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600

Responsible Department : Product Safety and Toxicology Group
E-mail address : SDS@CPChem.com
Website : www.CPChem.com

SECTION 2: Hazards identification

Classification of the substance or mixture
This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200; the SDS and labels contain all the information as required by the standard.

Emergency Overview

Danger
Physical state: Liquid
Color: Clear, colorless
Odor: Sweet, distinct

OSHA Hazards : Flammable Liquid, Moderate skin irritant, Moderate eye irritant, Carcinogen, Mutagen, Developmental hazard, Target Organ Effects, Aspiration hazard

Classification

: Flammable liquids, Category 2
Skin irritation, Category 2
Eye irritation, Category 2A
Germ cell mutagenicity, Category 1B

MSDS Number: 100000013810
Carcinogenicity, Category 1A
Reproductive toxicity, Category 2
Specific target organ systemic toxicity - single exposure,
Category 3, Central nervous system
Specific target organ systemic toxicity - repeated exposure,
Category 1, Blood
Specific target organ systemic toxicity - repeated exposure,
Category 2, Auditory organs
Aspiration hazard, Category 1

Labeling

Symbol(s): 

Signal Word: Danger

Hazard Statements: H225: Highly flammable liquid and vapor.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H340: May cause genetic defects.
H350: May cause cancer.
H361: Suspected of damaging fertility or the unborn child.
H372: Causes damage to organs (Blood, Auditory organs) through prolonged or repeated exposure.

Precautionary Statements: Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces.
- No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/fume/gas/mist/vapor/spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/eye protection/face protection.
P281 Use personal protective equipment as required.

Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present
and easy to do. Continue rinsing.
P308 + P313  IF exposed or concerned: Get medical advice/attention.
P331  Do NOT induce vomiting.
P332 + P313  If skin irritation occurs: Get medical advice/attention.
P337 + P313  If eye irritation persists: Get medical advice/attention.
P362  Take off contaminated clothing and wash before reuse.
P370 + P378  In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:
P403 + P233  Store in a well-ventilated place. Keep container tightly closed.
P403 + P235  Store in a well-ventilated place. Keep cool.
P405  Store locked up.

Disposal:
P501  Dispose of contents/container to an approved waste disposal plant.

Carcinogenicity:
IARC  Group 1: Carcinogenic to humans
Benzene  71-43-2

NTP  Known to be human carcinogen
Benzene  71-43-2

ACGIH  Confirmed human carcinogen
Benzene  71-43-2

SECTION 3: Composition/information on ingredients

Synonyms  :  None Established

Molecular formula  :  UVCB

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), light catalytic reformed</td>
<td>64741-63-5</td>
<td>90 - 100</td>
</tr>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>50 - 70</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>20 - 30</td>
</tr>
<tr>
<td>Benzene, dimethyl-</td>
<td>1330-20-7</td>
<td>1 - 10</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

General advice  :  Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Material may produce a serious, potentially fatal pneumonia if swallowed or vomited.

If inhaled  :  Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.
In case of skin contact: If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact: Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed: Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5: Firefighting measures

Flash point: -11 °C (12 °F)
Method: Tag closed cup

Autoignition temperature: 580 °C (1,076 °F)

Suitable extinguishing media: Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical.

Unsuitable extinguishing media: High volume water jet.

Specific hazards during fire fighting: Do not allow run-off from fire fighting to enter drains or water courses.

Special protective equipment for fire-fighters: Wear self-contained breathing apparatus for firefighting if necessary.

Further information: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.

Fire and explosion protection: Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

Hazardous decomposition products: Carbon Dioxide. Carbon oxides.

SECTION 6: Accidental release measures

Personal precautions: Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions: Prevent product from entering drains. Prevent further leakage.
or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7: Handling and storage

Handling

Advice on safe handling: Avoid formation of aerosol. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Container may be opened only under exhaust ventilation hood. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations. Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary, but may not by themselves be sufficient. Review all operations, which have the potential to generating and accumulation of electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106 “Flammable and Combustible Liquids”; National Fire Protection Association (NFPA 77), "Recommended Practice on Static Electricity"; and/or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising Out of Static, Lightning, and stray Currents".

Advice on protection against fire and explosion: Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

Storage

Requirements for storage areas and containers: No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Basis</th>
<th>Value</th>
<th>Control parameters</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>ACGIH</td>
<td>TWA</td>
<td>0.5 ppm, BEI, A1, Skin</td>
<td></td>
</tr>
</tbody>
</table>

MSDS Number: 100000013810  5/17
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**Version 1.3**

**Revision Date** 2015-05-05

**MSDS Number:** 100000013810

### Engineering measures

Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

### Personal protective equipment

#### Respiratory protection

Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Air-Purifying Respirator for Organic Vapors. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

#### Hand protection

The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

#### Eye protection

Eye wash bottle with pure water. Tightly fitting safety goggles.

#### Skin and body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate: Flame retardant
antistatic protective clothing. Workers should wear antistatic footwear.

Hygiene measures: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance
- Physical state: Liquid
- Color: Clear, colorless
- Odor: Sweet, distinct

Safety data
- Flash point: -11 °C (12 °F)
  Method: Tag closed cup
- Lower explosion limit: No data available
- Upper explosion limit: No data available
- Oxidizing properties: no
- Autoignition temperature: 580 °C (1,076 °F)
- Molecular formula: UVCB
- Molecular weight: Not applicable
- pH: Not applicable
- Melting point/range: -5.5 °C (22.1 °F)
- Boiling point/boiling range: 80 °C (176 °F)
- Vapor pressure: 75.00 MMHG
  at 20 °C (68 °F)
- Relative density: 0.87
  at 15.6 °C (60.1 °F)
- Density: 0.87 G/ML
- Water solubility: Insoluble in water; miscible with most organic solvents.
- Viscosity, kinematic: < 1.138 cSt
  at 37.8 °C (100.0 °F)
- Relative vapor density: 2.77
  (Air = 1.0)
- Evaporation rate: 2.8
- Percent volatile: > 99 %
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SECTION 10: Stability and reactivity

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

No decomposition if stored and applied as directed.

Possibility of hazardous reactions

Conditions to avoid : Heat, flames and sparks.

Materials to avoid : May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous decomposition products : Carbon Dioxide

Carbon oxides

Other data : No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

Benzene / Toluene Mixture - Kingwood

Acute oral toxicity : LD50 Oral: 4,052 mg/kg

Species: Rat

Method: Acute toxicity estimate

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Acute inhalation toxicity : LC50: > 40 mg/l

Exposure time: 4 h

Species: Rat

Test atmosphere: vapor

Method: Acute toxicity estimate

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Acute dermal toxicity : LD50 Dermal: > 5,000 mg/kg

Species: Rabbit

Method: Acute toxicity estimate

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Skin irritation : Information refers to the main ingredient. Moderate skin irritation. May cause skin irritation in susceptible persons.

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Eye irritation : May irritate eyes. Vapors may cause irritation to the eyes, respiratory system and the skin.
### Sensitization

: No data available.

### Repeated dose toxicity

**Naphtha (petroleum), light catalytic reformed**

<table>
<thead>
<tr>
<th>Species: Rat</th>
<th>Application Route: Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dose: 0, 2.00, 5.85, 20.3 mg/l</td>
<td></td>
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<tr>
<td>Exposure time: 21 day</td>
<td></td>
</tr>
<tr>
<td>Number of exposures: 6 h/d, 5 d/wk</td>
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<tr>
<td>NOEL: 20.3 mg/l</td>
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</table>

<table>
<thead>
<tr>
<th>Species: Rabbit</th>
<th>Application Route: Dermal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dose: 0, 200, 1000, 2000 mg/l</td>
<td></td>
</tr>
<tr>
<td>Exposure time: 28 day</td>
<td></td>
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<tr>
<td>Number of exposures: 3 times/wk</td>
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<tr>
<td>Lowest observable effect level: 1000 mg/l</td>
<td></td>
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</tbody>
</table>

**Benzene**

<table>
<thead>
<tr>
<th>Species: Rat, female</th>
<th>Application Route: oral gavage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dose: 0, 25, 50, 100 mg/kg</td>
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<tr>
<td>Exposure time: 103 wk</td>
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<tr>
<td>Number of exposures: 5 d/wk</td>
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<tr>
<td>NOEL: &lt; 25 mg/kg</td>
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<tr>
<td>Lowest observable effect level: 25 mg/kg</td>
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</table>

<table>
<thead>
<tr>
<th>Species: Rat, male</th>
<th>Application Route: oral gavage</th>
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</thead>
<tbody>
<tr>
<td>Dose: 0, 50, 100, 200 mg/kg</td>
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<tr>
<td>Exposure time: 103 wk</td>
<td></td>
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<tr>
<td>Number of exposures: 5 d/wk</td>
<td></td>
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<tr>
<td>NOEL: &lt; 50 mg/kg</td>
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<tr>
<td>Lowest observable effect level: 50 mg/kg</td>
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<table>
<thead>
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<th>Species: Mouse</th>
<th>Application Route: oral gavage</th>
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</thead>
<tbody>
<tr>
<td>Dose: 0, 25, 50, 100 mg/kg</td>
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<tr>
<td>Exposure time: 103 wk</td>
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<tr>
<td>NOEL: &lt; 25 mg/kg</td>
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**Toluene**

<table>
<thead>
<tr>
<th>Species: Rat</th>
<th>Application Route: Inhalation</th>
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<tbody>
<tr>
<td>Dose: 0, 100, 625, 1250, 3000 ppm</td>
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<tr>
<td>Exposure time: 15 wk</td>
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<td>Number of exposures: 6.5 h/d, 5 d/wk</td>
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<tr>
<td>NOEL: 625 ppm</td>
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<table>
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<tbody>
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<td>Dose: 0, 100, 625, 1250, 3000 ppm</td>
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<tr>
<td>Exposure time: 14 wk</td>
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<td>Number of exposures: 6.5 h/d, 5 d/wk</td>
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<tr>
<td>NOEL: 100 ppm</td>
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**Benzene, dimethyl-**

<table>
<thead>
<tr>
<th>Species: Rat</th>
<th>Application Route: oral gavage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dose: 0, 62.5, 125, 250, 500, 100...</td>
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<tr>
<td>Exposure time: 13 wk</td>
<td></td>
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</tbody>
</table>
## Benzene / Toluene Mixture - Kingwood

**Number of exposures:** daily, 5 d/wk  
**NOEL:** 1,000 mg/kg  

**Species:** Rat  
**Application Route:** Inhalation  
**Dose:** 0, 180, 460, 810 ppm  
**Exposure time:** 13 wk  
**Number of exposures:** 6 h/d, 5 d/wk  
**NOEL:** > 810 ppm

**Species:** Rat  
**Application Route:** Inhalation  
**Dose:** 0, 450, 900, 1800 ppm  
**Exposure time:** 13 wk  
**Number of exposures:** 6 h/d, 6 d/wk  
**Lowest observable effect level:** 900 ppm

### Carcinogenicity

**Benzene**  
**Species:** Rat  
**Sex:** female  
**Dose:** 0, 25, 50, 250 mg/kg  
**Exposure time:** 103 wks  
**Number of exposures:** daily, 5 days/week  
**Test substance:** yes  
**Remarks:** zymbal gland carcinomas, squamous cell papillomas

**Species:** Rat  
**Sex:** male  
**Dose:** 0, 50, 100, 200 mg/kg  
**Exposure time:** 103 wks  
**Number of exposures:** daily, 5 days/week  
**Test substance:** yes  
**Remarks:** zymbal gland carcinomas, squamous cell papillomas

**Species:** Mouse  
**Sex:** male and female  
**Dose:** 25, 50, 100 mg/kg  
**Exposure time:** 103 wks  
**Number of exposures:** daily, 5 days/week  
**Test substance:** yes  
**Remarks:** Clear evidence of multiple organ carcinogenicity.

**Toluene**  
**Species:** Rat  
**Dose:** 0, 600, 1200 ppm  
**Exposure time:** 2 yrs  
**Number of exposures:** 6.5 h/d, 5 d/wk  
**Remarks:** No evidence of carcinogenicity

**Species:** Mouse  
**Dose:** 0, 600, 1200 ppm  
**Exposure time:** 2 yrs  
**Number of exposures:** 6.5 h/d, 5 d/wk  
**Remarks:** No evidence of carcinogenicity

**Benzene, dimethyl-**  
**Species:** Rat  
**Dose:** 0, 250, 500 mg/kg
<table>
<thead>
<tr>
<th>Substance</th>
<th>Species</th>
<th>Application Route</th>
<th>Dose</th>
<th>Test period</th>
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<td><strong>Dose</strong></td>
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<td><strong>Application Route</strong></td>
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<td><strong>Test period</strong></td>
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<tr>
<td><strong>NOAEL Parent</strong></td>
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</tbody>
</table>

**Reproductive toxicity**

**Toluene**

- Species: Rat
- Application Route: Inhalation
- Dose: 0, 100, 500, 2000 ppm
- Test period: 95 d
- NOAEL Parent: 2000 ppm

**Benzene, dimethyl-**

- Species: Rat
- Application Route: Inhalation
- Dose: 0, 805, 1610 ppm
- Number of exposures: 6 h/d
- Test period: GD 7-16
- NOAEL Maternal: 1610 ppm

- Species: Mouse
- Application Route: oral gavage
- Dose: 0, 780, 1960, 2619 mg/kg
- Number of exposures: 3 times/d
- Test period: GD 6-15
- NOAEL Teratogenicity: 780 mg/kg
- NOAEL Maternal: 780 mg/kg

**Benzene / Toluene Mixture - Kingwood**

**Aspiration toxicity**

- May be fatal if swallowed and enters airways.
- Substances known to cause human aspiration toxicity hazards or to be regarded as if they cause human aspiration toxicity hazard.

**CMR effects**

**Naphtha (petroleum), light catalytic reformed**

- Carcinogenicity: Possible human carcinogen
- Mutagenicity: In vivo tests showed mutagenic effects

**Benzene**

- Carcinogenicity: Human carcinogen.
- Mutagenicity: In vivo tests showed mutagenic effects.
- Teratogenicity: Did not show teratogenic effects in animal experiments.
- Reproductive toxicity: Animal testing did not show any effects on fertility.
Toluene  
Carcinogenicity: Not classifiable as a human carcinogen. 
Mutagenicity: Animal testing did not show any mutagenic effects. 
Teratogenicity: Some evidence of adverse effects on development, based on animal experiments. 
Reproductive toxicity: Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

Benzene, dimethyl-  
Carcinogenicity: Limited evidence of carcinogenicity in animal studies 
Mutagenicity: Did not show mutagenic effects in animal experiments. 
Teratogenicity: Damage to fetus not classifiable

**Benzene / Toluene Mixture - Kingwood**
**Further information**: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.

### SECTION 12: Ecological information

**Toxicity to fish**

**Benzene**  
LC50: 5.3 mg/l  
Exposure time: 96 h  
Species: Oncorhynchus mykiss (rainbow trout)  
flow-through test  
Test substance: yes  
Method: OECD Test Guideline 203

**Toluene**  
LC50: 18 - 36 mg/l  
Exposure time: 96 h  
Species: Pimephales promelas (fathead minnow)

**Benzene, dimethyl-**  
LC50: 8.2 mg/l  
Exposure time: 96 h  
Species: Salmo gairdneri (Rainbow trout)

**Toxicity to daphnia and other aquatic invertebrates**

**Benzene**  
EC50: 10 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
static test  
Test substance: yes  
Method: OECD Test Guideline 202

**Toluene**  
EC50: 3.78 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)

**Toxicity to algae**

**Benzene**  
ErC50: 100 mg/l  
Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
Test substance: yes
Method: OECD Test Guideline 201

Toluene
EC50: 134 mg/l
Exposure time: 72 h
Species: Chlamydomonas angulosa (Green algae)

Elimination information (persistence and degradability)
Biodegradability: This material is volatile and is expected to partition to air.

Ecotoxicology Assessment
Acute aquatic toxicity: Toxic to aquatic life.
Chronic aquatic toxicity: Harmful to aquatic life with long lasting effects.

Results of PBT assessment
Benzene: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations
The information in this SDS pertains only to the product as shipped.
Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Product: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information
The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).
Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.). Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the

MSDS Number: 100000013810
bill of lading.

**US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)**
UN1993, FLAMMABLE LIQUIDS, N.O.S., (TOLUENE, BENZENE), 3, II, RQ (TOLUENE, BENZENE)

**IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)**
UN1993, FLAMMABLE LIQUID, N.O.S., (TOLUENE, BENZENE), 3, II, (-11 °C)

**IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)**
UN1993, FLAMMABLE LIQUID, N.O.S., (TOLUENE, BENZENE), 3, II

**ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))**
UN1993, FLAMMABLE LIQUID, N.O.S., (TOLUENE, BENZENE), 3, II, (D/E)

**RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))**
UN1993, FLAMMABLE LIQUID, N.O.S., (TOLUENE, BENZENE), 3, II

**ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)**
UN1993, FLAMMABLE LIQUID, N.O.S., (TOLUENE, BENZENE), 3, II

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

**SECTION 15: Regulatory information**

**National legislation**

**SARA 311/312 Hazards**
Fire Hazard
Acute Health Hazard
Chronic Health Hazard

**EPCRA - EMERGENCY PLANNING COMMUNITY RIGHT - TO – KNOW**

**CERCLA Reportable Quantity**
17 lbs
Benzene

**SARA 302 Threshold Planning Quantity**
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Ingredients:
- Benzene - 71-43-2
  - Toluene - 108-88-3
  - Benzene, dimethyl- - 1330-20-7

Clean Air Act

Ozone-Depletion Potential: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):
- Benzene - 71-43-2
  - Toluene - 108-88-3
  - Benzene, dimethyl- - 1330-20-7

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):
- Benzene - 71-43-2
  - Toluene - 108-88-3
  - Benzene, dimethyl- - 1330-20-7

US State Regulations

Pennsylvania Right To Know:
- Benzene - 71-43-2
  - Toluene - 108-88-3
  - Benzene, dimethyl- - 1330-20-7

New Jersey Right To Know:
- Benzene - 71-43-2
  - Toluene - 108-88-3
  - Benzene, dimethyl- - 1330-20-7

California Prop. 65 Ingredients:
- WARNING! This product contains a chemical known in the State of California to cause cancer.

- WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.
**Notification status**
- **Europe REACH**: Not in compliance with the inventory
- **United States of America TSCA**: On the inventory, or in compliance with the inventory
- **Canada DSL**: On the inventory, or in compliance with the inventory
- **Australia AICS**: On the inventory, or in compliance with the inventory
- **New Zealand NZIoC**: On the inventory, or in compliance with the inventory
- **Japan ENCS**: On the inventory, or in compliance with the inventory
- **Korea KECI**: On the inventory, or in compliance with the inventory
- **Philippines PICCS**: Not in compliance with the inventory
- **China IECSC**: On the inventory, or in compliance with the inventory

**SECTION 16: Other information**

**NFPA Classification**
- Health Hazard: 2
- Fire Hazard: 3
- Reactivity Hazard: 0

**Further information**
- Legacy SDS Number: CPC00230

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Government Industrial Hygienists</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50%</td>
</tr>
<tr>
<td>AICS</td>
<td>Australia, Inventory of Chemical Substances</td>
</tr>
<tr>
<td>LOAEL</td>
<td>Lowest Observed Adverse Effect Level</td>
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<tr>
<td>DSL</td>
<td>Canada, Domestic Substances List</td>
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<tr>
<td>NFPA</td>
<td>National Fire Protection Agency</td>
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<tr>
<td>NDSL</td>
<td>Canada, Non-Domestic Substances List</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
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<tr>
<td>CAS</td>
<td>Chemical Abstract Service</td>
</tr>
<tr>
<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
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<tr>
<td>EC50</td>
<td>Effective Concentration</td>
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<tr>
<td>NOAEL</td>
<td>No Observable Adverse Effect Level</td>
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<tr>
<td>EC50 50%</td>
<td>Effective Concentration 50%</td>
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<tr>
<td>NOEC</td>
<td>No Observed Effect Concentration</td>
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<tr>
<td>EGEST</td>
<td>EOSCA Generic Exposure Scenario Tool</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety &amp; Health Administration</td>
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</table>

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<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
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<tr>
<td>EINECS</td>
<td>European Inventory of Existing Chemical Substances</td>
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<tr>
<td>MAK</td>
<td>Germany Maximum Concentration Values</td>
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<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
</tr>
<tr>
<td>&gt;=</td>
<td>Greater Than or Equal To</td>
</tr>
<tr>
<td>IC50</td>
<td>Inhibition Concentration 50%</td>
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<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
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<tr>
<td>IECSC</td>
<td>Inventory of Existing Chemical Substances in China</td>
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<tr>
<td>ENCS</td>
<td>Japan, Inventory of Existing and New Chemical Substances</td>
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<tr>
<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
</tr>
<tr>
<td>&lt;=</td>
<td>Less Than or Equal To</td>
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<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
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<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
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<tr>
<td>PRNT</td>
<td>Presumed Not Toxic</td>
</tr>
<tr>
<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
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<tr>
<td>STEL</td>
<td>Short-term Exposure Limit</td>
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<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act.</td>
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<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
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<tr>
<td>TWA</td>
<td>Time Weighted Average</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
</tr>
<tr>
<td>UVCB</td>
<td>Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
</tr>
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</table>